

[Claims]

What is claimed is:

1. Temperature sensitive state-changing hydrogel composition, comprising of;
 - (a) Branched Gel Polymer 1-10 wt %;
 - (b) Electrolyte Gel Polymer 0.5-5 wt %;
 - (c) Skin-friendly Enhancements 0.5-5 wt%;
 - (d) Natural Bio Material 1-10 wt%;
 - (e) Aliphatic Polyol 3-30wt %;
 - (f) Functional Additive 1-10 wt %; and
 - (g) Water 30-93 wt %.
2. State-changing hydrogel composition according to claim 1, wherein said the Branched gel polymer, one of the Hydrogel ingredient, is water soluble Polysaccharide Polymers which are selected from at least one from the group of Galactomannan, Glucomannan, Guagum, Locastgum and Plutonic.
3. State-changing hydrogel composition according to claim 1, the Electrolyte gel polymer, one of the Hydrogel ingredient, is the Polysaccharide Polymers which are selected from at least one from the group of Aga, Algin, Carrageenan, Xantan and Gelan.
4. State-changing hydrogel composition according to claim 1, Skin-friendly enhancer, one of the Hydrogel ingredient, is selected from at least one from the group of Polysaccharide like Chitosan, proteoglycans, Chitosan derivative, Elastin, Collagen, Hyaluronic Acid or other Proteins.
5. State-changing hydrogel composition according to claim 1, Natural bio materials, one of the Hydrogel ingredient, is the natural substance extracted from plant, animal or mineral which are aloe, green tea, ginseng, wood vinegar, pine needles, propolis, ginkgo leaves, and mulberry leaves (silkworm).

6. State-changing hydrogel composition according to claim 1, Aliphatic Polyol, one of the Hydrogel ingredients, is liquid Propylene glycol or liquid glycerine which are water soluble.

7. State-changing hydrogel composition according to claim 1, Functional additive, one of the Hydrogel ingredient, is the additive that can provide stability and beauty care functionality. They are propilparavin, Kojic acid, α -Hydroxy acid, imidazolidinylurea, twin80 and retinol.

8. Temperature Sensitive State-changing Hydrogel production method is as follows.

The first step (Preparation of Gel solution): At the room temperature, mix Aliphatic Polyol 3-30 wt % with branched gel polymer 1-10 wt % (extracted from group of Galactomannan, Glucomannan, Guagum, Locastgum and Plutonic), Electrolyte gel polymer 0.5-5 wt % (extracted from group of Aga, Aglin, Carragenan, Xantan and Gelan), Functional Additive 1-10 wt % (extracted from group of Chitosan derivative, Proteoglucan, Elastin, Collagen and Hyaluronic acid), and add 30-93 wt % water. Then increase the temperature to 45~95 °C.

The second step: While maintaining the temperature at 45~95°C, sequentially add Natural Bio Material 1-10 wt % (extracted from Aloe, Green Tea, Ginseng, Wood Vinegar, Pine Needles, Ginkgo Leaf, Mulberry Leaf (Silkworm)), Skin-friendly Enhancements 0.5-5 wt % (Extracted from Metilparavin, Propilpaprvin, Kojic acid, α -Hydroxy Acid and Retinol), and cool it down to room temperature.